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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,746	12/02/2003	Gopichandra Surnilla	202-1387 (FGT 3B6)	6817
36865	7590	11/14/2005		
ALLEMAN HALL MCCOY RUSSELL & TUTTLE, LLP 806 S.W. BROADWAY, SUITE 600 PORTLAND, OR 97205				
			EXAMINER NGUYEN, TU MINH	
			ART UNIT 3748	PAPER NUMBER

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,746

Applicant(s)

SURNILLA ET AL.

Examiner

Tu M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-21 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16-21 are rejected under 35 U.S.C. 112, second paragraph, because the based claims 16 and 17 recite the limitation "the emission control device". Since there are a first emission control device and a second emission control device, it is unclear to the examiner which emission control device the limitation is referring to.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 7 and 10-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al. (U.S. Patent 6,892,527).

Re claim 7, as shown in Figures 1, 2, and 5, Ueda et al. disclose a method for controlling engine operation in a vehicle, the engine coupled to an emission control device including at

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least platinum particles (line 12 of column 4) for converting emissions from the engine, the method comprising:

- detecting a deceleration condition of the vehicle (see line 65 of column 4 to line 4 of column 5);
- determining temperature of the emission control device (lines 30-38 of column 5);
- enabling fuel cut operation in at least one cylinder when the device temperature is less than a first value (t_{MAX}) during the detected deceleration condition (see lines 9-31 of column 10); and
- disabling fuel cut operation in at least one cylinder when the device temperature is greater than a second value (t_{MAX}) (see Figure 5 and lines 9-21 of column 10).

Re claim 10, in the method of Ueda et al., the detecting the deceleration condition includes detecting pedal position of a pedal actuated by a vehicle operator (line 65 of column 4 to line 4 of column 5).

Re claims 11 and 13, in the method of Ueda et al., the first value and the second value are based on air-fuel ratio (lines 32-40 of column 10).

Re claims 12 and 14, in the method of Ueda et al., the first value and the second value are based on excess oxygen (lines 32-40 of column 10).

Re claim 15, in the method of Ueda et al., the first value (t_{MAX}) equals the second value (t_{MAX}).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. as applied to claim 7 above, in view of Bolz et al. (U.S. Patent 6,510,685).

Re claim 8, the method of Ueda et al. discloses the invention as cited above, however, fails to disclose that the method further comprises, in response to the deceleration condition, adjusting an exhaust valve in an exhaust system of the engine to increase exhaust gas cooling.

As depicted in Figures 1-3, Bolz et al. teach that during a coasting fuel shut-off situation (step 202 with ON answer), an exhaust valve in an exhaust system of the engine is adjusted (step 206) to increase exhaust gas cooling. It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the adjustment of the exhaust valve as taught by Bolz et al. in the method of Ueda et al., since the use thereof would have provided an effective means to control a temperature of the emission control device.

Re claim 9, in the modified method of Ueda et al., the fuel cut operation is enabled for all cylinders of the engine.

7. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freisinger et al. (6,729,120).

Re claim 1, as illustrated in the Figure, Freisinger et al. disclose a method for controlling engine operation in a vehicle, the engine coupled to an emission control device (catalytic converter), the method comprising:

- detecting a deceleration condition of the vehicle (step A1); and
- in response to the deceleration condition, adjusting fuel injection into the engine to maintain an exhaust mixture air-fuel ratio entering the emission control device to be lean (step A2 with Yes answer and step of “No intervention in engine operation”), but less lean than a limit air-fuel ratio value, the limit air-fuel ratio value being a lean air-fuel ratio limit (step A2 with No answer and step of “Switch off”) determined as a function of exhaust temperature.

Freisinger et al., however, fail to disclose that the emission control device includes at least platinum particles.

It is well known to those with ordinary skill in the art that a typical emission control device includes a noble metal such as platinum particles for the effective purification of the exhaust gas. Therefore, such disclosure by Freisinger et al. is notoriously well known in the art so as to be proper for official notice.

Re claim 3, in the method of Freisinger et al., the limit air-fuel ratio decreases as temperature increases, at least in one operating region.

Re claim 4, in the method of Freisinger et al., the exhaust temperature includes temperature of the emission control device.

Re claim 5, the method of Freisinger et al. discloses the invention as cited above, however, fails to disclose that the exhaust includes a second emission control device coupled upstream of the emission control device.

It is well known to those with ordinary skill in the art that a typical exhaust system of an internal combustion engine includes a second and smaller emission control device coupled upstream of a first and larger emission control device in order to purify exhaust gas during start-up, to oxidize various compounds in the exhaust gas, etc. Therefore, such disclosure by Freisinger et al. is notoriously well known in the art so as to be proper for official notice.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freisinger et al. as applied to claim 1 above, in view of Bolz et al.

The method of Freisinger et al. discloses the invention as cited above, however, fails to disclose that the method further comprises adjusting an exhaust valve in an exhaust system of the engine to increase exhaust gas cooling.

As depicted in Figures 1-3, Bolz et al. teach that during a coasting fuel shut-off situation (step 202 with ON answer), an exhaust valve in an exhaust system of the engine is adjusted (step 206) to increase exhaust gas cooling. It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the adjustment of the exhaust valve as taught by Bolz et al. in the method of Freisinger et al., since the use thereof would have provided an effective means to control a temperature of the emission control device.

Allowable Subject Matter

9. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

10. The IDS (PTO-1449) filed on December 2, 2003 has not been considered because the page(s) in the IDS that contain a listing of the cited references appear to be missing. Applicants are requested to submit a complete IDS as a response to this Office Action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of six patents: Iizuka et al. (U.S. Patent 4,165,610), Suzuki et al. (U.S. Patent 6,405,527), Ide (U.S. Patent 6,408,618), Nagai et al. (U.S. Patent 6,792,750), Ament (U.S. Patent 6,857,264), and Rozario (U.S. Patent 6,922,986) further disclose a state of the art.

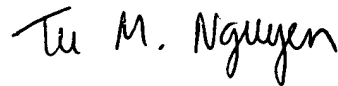
Communication

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (571) 272-4862.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TMN

Tu M. Nguyen

November 13, 2005

Primary Examiner

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